## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Re the Application of:

Group Art Unit: 3643

MICKE et al.

Examiner: Price, Richard Thomas Jr.

Serial No.: 10/005,797

REQUEST FOR RECONSIDERATION OF ABANDONMENT

Filed: November 2, 2001

Atty. File No.: 3957-8-DIV

For: "METHOD AND APPARATUS FOR

REMOVING OBSTRUCTIONS IN

MINES"

"EXPRESS MAIL" LABEL NUMBER: EV 332358058U S DATE OF DEPOSIT: 9/15/03

I HEREBY CERTIFY THAT THIS CORRESPONDENCE IS BEING DEPOSITED WITH THE UNITED STATES POSTAL SERVICE "EXPRESS MAIL POST OFFICE TO ADDRESSEE" UNDER 37 CFR 1.10 ON THE DATE INDICATED ABOVE AND IS ADDRESSED TO THE COMMISSIONER FOR PATENTS, P.O. BOX

1450, ALEXANDRIA, VA 22313-1450.

SIGNATURE

P.O. Box 1450 Alexandria, VA 22313

Commissioner for Patents

Dear Sir:

SEP 2 2 2003

A Notice of Abandonment was mailed in connection with the abGRAINFED Date of Abandonment was mailed in connection with the abGRAINFED Date of Abandonment was mailed in connection with the abGRAINFED Date of Abandonment was mailed in connection with the abGRAINFED Date of Abandonment was mailed in connection with the abGRAINFED Date of Abandonment was mailed in connection with the abGRAINFED Date of Abandonment was mailed in connection with the abGRAINFED Date of Abandonment was mailed in connection with the abGRAINFED Date of Abandonment was mailed in connection with the abGRAINFED Date of Abandonment was mailed in connection with the abGRAINFED Date of Abandonment was mailed in connection with the abGRAINFED Date of Abandonment was mailed in connection with the abGRAINFED Date of Abandonment was mailed in connection with the abGRAINFED Date of Abandonment was mailed by the about the application on July 24, 2003. Applicants respectfully traverse the holding of abandonment, on the grounds that a timely response to the Office Action of December 3, 2002 was filed.

On February 21, 2003, an Amendment and Response in reply to the Office Action of December 3, 2002, was mailed to the Patent Office under a certificate of mailing in accordance with 37 CFR§ 1.8. A copy of the Amendment and Response is attached as Exhibit A. A postcard receipt submitted to the Patent Office with the Amendment and Response, and date-stamped by the OIPE on February 21, 2003, was received by the office of the Applicant's attorneys on March 6, 2003, and evidences the timely filing of the Amendment and Response (see Exhibit B).

In addition, the office of Applicants' attorneys was contacted by the Examiner by telephone regarding the status of the application. During that telephone conference, it became apparent that the Amendment and Response of February 21, 2003, had not been matched with the patent application file. Accordingly, a Request for Consideration of Amendment and Response was filed by Applicants' attorneys under a certificate of mailing dated July 18, 2003. (Exhibit C). A postcard receipt submitted to the Patent Office with the Request for Consideration of Amendment and Response, and date stamped by the OIPE on July 18, 2003, was received by the office of the Applicants' attorneys on July 28, 2003. (Exhibit D).

Because a timely response to the Office Action of December 3, 2002, was filed, there was no abandonment in fact of this patent application. Furthermore, because a timely reply was filed, there is no need to revive the patent application. Instead, the holding of abandonment should be reconsidered and withdrawn, and the Amendment and Response filed on February 21, 2003 should be considered in reply to the Office Action. (See M.P.E.P § 711.03).

The Examiner is invited to contact the undersigned by telephone if doing so would expedite the resolution of this case.

SEP 2 2 2003 GROUP 3600 Respectfully submitted,

SHERIDAN ROSS P.C.

Bradley M. Knepper Registration No. 44,189

1560 Broadway, Suite 1200

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Date: Scytterber 15, 2003

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

the Application of:

MICKE et al.

Serial No.: 10/005,797

Filed: November 2, 2001

Atty. File No.: 3957-8-DIV

For: "METHOD AND APPARATUS FOR

REMOVING OBSTRUCTIONS IN

MINES"

Assistant Commissioner for Patents Washington, D.C. 20231

Dear Sir:

Group Art Unit: 3643

Examiner: Price, Richard Thomas Jr.

AMENDMENT AND RESPONSE

\*EXPRESS MAIL\* MAILING LABEL NUMBER: EL923668676US DATE OF DEPOSIT: 2/21/03

I HEREBY CERTIFY THAT THIS WITH THE UNITED STATES POSTAL SERVICE: "EXPRESS MAIL POST OFFICE TO ADDRESSEE" SERVICE UNDER 37 C.F.R. 1.10 ON THE DATE INDICATED ABOVE AND IS ADDRESSED TO THE ASSISTANT COMMISSIONER FOR PATENTS, WASHINGTON, D.C. 20231.

TYPED OR PRINTED NAME: Aimee M. Thuerk

Applicant submits this Amendment and Response to address the Office Action having a mailing date of December 3, 2002. Although the Applicant believes that no fees are due for filing this Amendment and Response, please charge any fees deemed necessary to Deposit Account No. 19-1970. Reconsideration and withdrawal of the rejections of the claims are respectfully requested in view of the following amendments and remarks:

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#### **AMENDMENTS**

# IN THE CLAIMS:

Please amend Claim 1 and add new Claims 37-39 as follows:

 (Once Amended) A system for launching a projectile to remove a body of rock in an excavation, comprising:

a projectile that includes:

a nose, the nose being one of substantially flat and concave to inhibit deflection of the projectile from a face of the rock;

a body containing an explosive charge; and

a tail having a plurality of fins to control the trajectory of the projectile;

and

a tube for launching the projectile.

- 37. (New) The system of Claim 1, wherein said nose is concave.
- 38. (New) The system of Claim 1, wherein said nose is substantially flat.
- 39. (New) The system of Claim 1, wherein said nose has a diameter that is about equal to a maximum diameter of said projectile.

## **REMARKS**

The above-identified patent application has been reviewed in light of the Examiner's Action dated December 3, 2002. In the amendments set forth above, Claim 1 has been amended without intending to abandon or to dedicate to the public any patentable subject matter, and without narrowing the claim, Claims 37-39 are new, and no claims have been canceled. Accordingly, Claims 1-8 and 37-39 are now pending. As set out more fully below, reconsideration and withdrawal of the rejections of the claims are respectfully requested.

Claims 1-8 stand rejected under 35 U.S.C. §103 as being unpatentable over U.S. Patent No. 5,485,787 to Bowcutt et al. ("Bowcutt"). In order to establish a *prima facie* case of obviousness under 35 U.S.C. §103, there must be some suggestion or motivation to modify the reference, there must be a reasonable expectation of success, and the prior art reference must teach or suggest all of the claim limitations. (MPEP §2143). It is submitted that a *prima facie* case to reject Claims 1-8 has not been established. In particular, and as discussed more fully below, Bowcutt does not teach, suggest or disclose at least the feature of a projectile having a nose that is one of substantially flat and concave. Accordingly, for at least this reason, Claims 1-8 are not obvious in view of Bowcutt.

The Bowcutt reference is generally directed to a gas gun launched scramjet test projectile. The test projectile discussed by Bowcutt is designed to travel at velocities greater than Mach 5.

The projectile is propulsion-assisted and is used to enable the simulation of flow physics and the acquisition of performance data that correlates directly to those of a scramjet powered vehicle.

(Bowcutt, col. 4, lns. 5-7). Accordingly, the projectile discussed by Bowcutt is concerned with

the integration of the air frame and propulsion systems for vehicles or projectiles traveling at supersonic and hypersonic speeds. (See Bowcutt, col. 1, lns. 27-30). The projectile illustrated by Bowcutt includes a nose cap 101 secured to the forebody 102 to form an external surface that extends from the projectile nose tip 103 rearwardly to the vicinity of the leading edge of the cowl 110. (Bowcutt, col. 5, lns. 5-9). Because the projectile 100 is intended to travel at velocities greater than Mach 5 (Bowcutt Abstract, Claim 1), and because parameters that include the forebody and inlet contraction ratios, the inlet efficiency, etc., impacts the performance of ramiet and scramjet systems (Bowcutt, col. 1, ln. 65 to col. 2, ln. 3), there is no teaching, suggestion or disclosure of a substantially flat or concave nose as recited by the pending claims. In addition, because removal of the nose 101 would foreshorten the compression surface S and leave an unfinished threaded portion T, Bowcutt cannot be understood as teaching, suggesting or disclosing operation of that reference's projectile without the tip 101. (Bowcutt, col. 4, ln. 63 to col. 5, ln. 9; Fig. 1). Furthermore, because Bowcutt is concerned with propelling a projectile at velocities of greater than Mach 5, Bowcutt teaches away from a projectile with a nose that is substantially flat or concave, or a nose that is adapted to inhibit deflection of the projectile from a face of rock in an excavation.

For the reasons set forth above, the Bowcutt reference does not teach, suggest or disclose a system for launching a projectile to remove a body of rock in an excavation as claimed.

Furthermore, the Bowcutt reference teaches away from specific structural aspects of the claimed system. Accordingly, the rejections of Claims 1-8 should be reconsidered and withdrawn.

Application No. 10/055,797

New Claims 37-39 depend from Claim 1, and recite specific projectile nose configurations disclosed by the specification. Therefore, Claims 37-39 are allowable for at least the same reasons that Claim 1 is allowable. Claims 37-39 do not add new matter.

Attached hereto is a marked up version of the changes made to the claims by the current amendment, captioned "VERSION WITH MARKINGS TO SHOW CHANGES MADE."

Based upon the foregoing, Applicants believe that all pending claims are in condition for allowance and such disposition is respectfully requested. In the event that a telephone conversation would further prosecution and/or expedite allowance, the Examiner is invited to contact the undersigned.

Respectfully submitted,

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Data

## VERSION WITH MARKINGS TO SHOW CHANGES MADE

Claim 1 has been amended as follows:

1. (Once Amended) A system for launching a projectile to remove a body of rock in an excavation, comprising:

a projectile that includes:

a nose, the nose being one of substantially flat and concave to inhibit deflection of the projectile from a face of the rock;

a body containing an explosive charge; and

a tail having a plurality of [transversely oriented] fins to control the trajectory of the projectile; and

a tube for launching the projectile.

Claims 37-39 are new.



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Date 2/21/03 [] Trademark Matter CEIVED Initial: AM7 [X] Patent Matter PTO Stamp indicates receipt of: Application Docket No.: 3957-8-DIV

Applicant: MICKE et al.

Title or Mark: "METHOD AND APPARATUS FOR REMOVING OBSTRUCTIONS IN MINES" Serial/Reg. No.: 10/005,797 # of Pages in Specification Filed/Issued Date: November 2, 2001 # of Pages in Claims [] Certificate of Mailing # of Sheets in Drawings [X] Express Mail No.: EL923668676US Theck for \$ 180.00 # of Pages in Seq. Listing LIST ALL DOCUMENTS BEING SENT TO PATENT OFFICE:

Amendment and Response; Information Disclosure Statement; PTO Form 1449; copies of three references